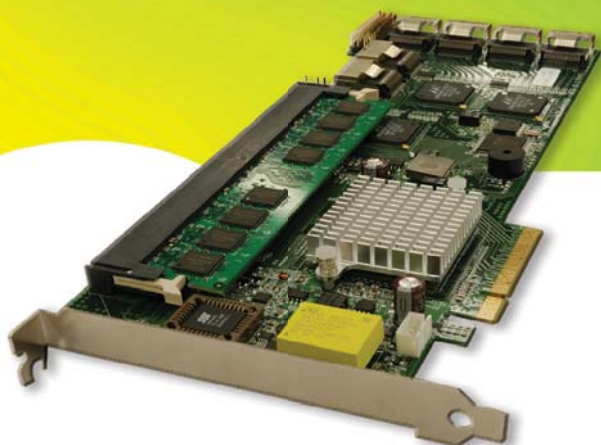




The Accusys eXpeRAID® ACS-61100 -12/16/24

Overview

The eXpeRAID® PCI Express™ to SATA2 RAID adapters offer superior performance and comprehensive RAID functions for Windows, Linux, and Mac platforms with user-friendly Java-based GUI, RAIDGuard™ X. Built upon the latest Intel XScale® Technology-based I/O processor, the eXpeRAID® adapters support RAID 6 for enterprise-class data protection. Supporting up to 24 SATA2 disk drives, the eXpeRAID® adapters are well suited for various applications, such as video editing, digital surveillance, file servers, and shared storages.

Newer I/O Processor, Higher Performance

The eXpeRAID® ACS-61100 is powered by power-efficient and high performance 800MHz Intel IOP341 I/O processor dedicated to RAID functionality. This processor provides hardware-embedded RAID acceleration engine, including enhanced hardware acceleration for RAID 5 and RAID 6. The overall system performance can be improved by its dual 128-bit/400 MHz internal buses, providing over 12 GB/s internal bandwidth and three application DMA units. The eXpeRAID® ACS-61100 fully utilize this I/O processor to meet higher industrial demands on server storage applications.

Maximum Throughput, Linear Performance

eXpeRAID® is designed to deliver not only for unmatched speed, but also for sustaining performance. When enabling the Accusys built-in Video-Streaming mode, the specially tuned setting will intelligently applied to the firmware to achieve the best streamlined performance without sacrificing too much of the speed. On top of that, the disk-lag-proof algorithm also participates to deliver this stable performance by regenerating the data timely for slower or busy disks. All of these ensure a faster, reliable and frame drop free environment for video/audio capturing and playback in standard-definition (SD) or high-definition (HD) project.

Scalable Capacity, Expandable System

Intuitive, User-Friendly Management eXpeRAID®

comes with a Java-based centralized management graphical user interface utility - RAIDGuard™ X. Thanks to the simple and straightforward guidance, RAIDGuard™ X shortens the learning curving of the new user who can now enjoy configuring and manipulating Accusys RAID storage without having to read the manual at any time. Behind this ease-of-use interface, RAIDGuard™ X contains many advanced features for power users and provides remote connection, allowing IT manager or administrator to manage multiple eXpeRAID® in one window at the same time.

Scalable Capacity

By overcoming the legacy 2TB limitation, eXpeRAID® allows a high demanding user to store large chunks of music, audio and video files in a single volume or LUN greater than 2TB. The substantially increased amount of capacity truly enforces the flexibility and capability in the storage market.

Protection and Backup Solution

eXpeRAID® provides maximum data protection by sharing the same backbone of Accusys over-decade field-proven RAID technologies. Moreover, the data protection is further enhanced by Accusys intelligent snapshot feature which allows online fast data backup and restore without intervening the current working volumes. Like the time traveler, user can use snapshot tool to schedule multiple backup volumes and later restore any backup volume at any point of time.

Effortless Management

The eXpeRAID® adapters satisfy users of different backgrounds by offering a variety of management interfaces, including BIOS UI, LCD panel, CLI (Command Line Interface) and Java-based GUI - RAIDGuard™ X. Users can quickly set up RAID configurations within minutes, and remotely manage multiple RAID adapters from single console by the GUI. Together with friendly event browsing and email notification, RAIDGuard™ X can support a new-bie to effortlessly enjoy the high performance and reliable RAID storage as well as reduce the support cost of system integrators.

PRODUCT HIGHLIGHTS

- Support up to 12/16/24 3Gb/s SATA2 drives
- Intel XScale® Technology-based RISC processor
- DDRII cache memory with BBM protection
- Configurable RAID levels: 0, 1, 5, 6, 0+1, and JBOD
- Instant availability by on-the-fly RAID initialization
- Support over-2TB volumes
- Optimized performance for multiple-stream video processing
- Online RAID expansion and migration
- Online disk S.M.A.R.T. monitoring
- Snapshot for fast data backup and restore
- Designed for Windows logo certification
- Certified for Windows Vista 32/64
- Support Mac OS and Linux
- Support EFI bootable
- Support legacy BIOS
- Java-based GUI for remote management, RAIDGuard™ X
- Support CLI - Command Line Interface
- RoHS Compliant

Technical Specifications

Host interface

- PCI Express™ 2.5GHz x8, transfer rate up to 2GBps
- Low-latency data transfer by direct memory access (DMA)

Disk interface

- 12/16/24 3Gb/s Serial ATAII (SATA2) channels
- Multi-lane SFF8087 (miniSAS 4i) connectors
- Support ATA S.M.A.R.T. functions
- Support SATA NCQ and stagger spin-up

RAID controller specifications

- Intel XScale® Technology-based IOP341 64-bit 800MHz RISC processor with high-performance XOR/Multi-Parity engine
- DDRII-667 DIMM socket, support ECC protection
- Support up to 2 GB memory
- Support battery-backup protection
- 32KB NVRAM with real-time clock (RTC)

Firmware features

- Multiple RAID levels: 0, 1, 5, 6, 0+1, and JBOD
- Up to 4 independent RAID groups
- RAID capacity partitioning: up to 16 slices
- Support up to 64 LUNs
- Variable strip sizes (KB): 8, 16, 32, 64, 128, 256
- Selective initialization method with on-the-fly background initialization
- Support over-2TB volumes
- Online RAID group expansion
- Online RAID level migration
- Support write-back and write-through caching
- Selective and adaptive read/write optimization policies
- Disk lag proof technology to guarantee timely IO response
- Performance equalizer for optimal sustaining throughput
- Automatic drive insertion/removal detection and fast disk rebuilding
- Online bad block data recovery and reallocation
- Online disk scrubbing with data refresh and parity regeneration
- Disk health monitoring by S.M.A.R.T.
- NVRAM-based transaction log and auto parity resynchronization
- Array roaming and drive traveling with redundant on-disk meta data

- Dual firmware images for firmware recovery
- Array recovery to restore RAID configurations
- Support boot from RAID

Snapshot

- Snapshot for fast data backup and restore
- Mirror-split shot with background full-volume copy
- Support manual and scheduled snapshot creation
- Fast resynchronization by delta data tracking
- Support writable snapshot LUN
- Support up to 8 concurrent snapshots per source volume

Management

- Support both in-band and out-band management
- Support drive status LED indicators
- Support LCD panel for RAID management
- Support I2C through multi-lane cables
- Local menu console operation via RS-232 port and LCD panel
- Support RAID management by EFI and BIOS
- Support firmware upgrade via GUI
- Open API library for management integration

RAIDGuard™ X GUI

- Java-based GUI, cross-platform executable
- Support remote management
- Event logging to text file with event viewer
- Event notification by email (SMTP)
- Centralized multiple RAID system management

Supported platforms

- Windows 2000/2003/XP/Vista 32/64-bit/2008(Miniport and Storport, WHQL certified)
- Linux 2.4.x and 2.6.x kernel
- Mac OS X (Mac G5 & Mac Pro)
- BIOS: support both legacy BIOS and EFI

Physical and Environment Specifications

Dimension

- Full-height adapters (253.75 x 106.65 mm)

Power Requirements

- + 3.3Vdc: 6.5W max.
- + 12.0Vdc: 15.2W max.

Humidity

- Operation mode : 5% to 85%
- Non-operation mode : 5% to 95%

Temperature

- Operation mode : 0°C to 50°C
- Non-operation mode : -20°C to 70°C

Certification Compliance

- FCC, CE, C-Tick, BSMI
- Certified for Windows Vista
- Designed for Windows logo certified

Ordering Information

PCI Express Adapter

- ACS-61100-12 : MiniSAS 4i x3
- ACS-61100-16 : MiniSAS 4i x4
- ACS-61100-24 : MiniSAS 4i x6

Battery Backup Module

- ACS-1162 : Lithium cells battery module. Cached data will be kept for up to 72 hours (50mA/100hrs).

Accusys
The RAID Architects

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Warranty

- 3-year limited warranty



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- Accusys Korea, Ltd.
- Accusys China.
- Accusys EU B.V

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